

# **Comprehensive Conservation and Management Plan - Albemarle-Pamlico Estuarine Study**

## **Restoration Plan Database: Crystal Reports of Individual Plan Summaries**

### **I. BASIC PLAN DATA**

#### **Plan name:**

Comprehensive Conservation and Management Plan - Albemarle-Pamlico Estuarine Study

#### **Brief description of plan:**

The Albemarle-Pamlico estuarine system is the second largest estuarine complex in the United States. This dynamic ecosystem is composed of seven sounds and drained by several major river basins in a small portion of southeastern Virginia and a major area of northeastern North Carolina. This plan responds to current signs of environmental stress with recommendations for protecting the health of the invaluable estuarine system, for both its important ecological role and to support sustainable resource use.

#### **Region the plan is located within:**

South-Atlantic Region

#### **Watershed(s) included within the plan:**

S005x , S010x , S013x , S016x , S020a , S020b , S020w , S030x , S035x

#### **Area plan covers (in square miles):**

30,000.00 square miles

#### **Plan scale:**

Multi-county

#### **Plan's lead organization(s):**

US Environmental Protection Agency, NC Department of Environment, Health, and Natural Resources

#### **Plan's Main Contact Information:**

Guy Stefanski  
APNEP Program Director  
NC Division of Water Quality  
Planning  
1617 Mail Service Center  
Raleigh, North Carolina 27699-1617  
919-733-5083 585  
919-715-5637  
[www.apnep.org/](http://www.apnep.org/)

**On-line version of plan:**

[www.apnep.org/pages/CCMP.html](http://www.apnep.org/pages/CCMP.html)

**Date of original plan:**

11/1994

## **II. TECHNICAL INFORMATION**

**Plan includes restoration goals:** Y

**Level of detail of the goals:**

G

**Summary of the goals:**

Water Quality Action Plan - Restore, maintain or enhance water quality in the Albemarle-Pamlico region so that it is fit for fish, wildlife and recreation. Vital Habitats Action Plan - Conserve and protect vital fish and wildlife habitats and maintain the natural heritage of the Albemarle-Pamlico region. Fisheries Action Plan - Restore or maintain fisheries and provide for their long-term, sustainable use, both commercial and recreational. Stewardship Action Plan - Promote responsible stewardship of the natural resources of the Albemarle-Pamlico region. Implementation Action Plan - Implement the Comprehensive Conservation and Management Plan in a way that protects environmental quality while using the most cost-effective and equitable strategies.

**Plan recommends or uses criteria for selecting restoration sites (e.g. cost benefit ratio, ecological benefits):**

Y

**Summary of the criteria:**

Mapping data collected through various objectives would be used to determine sites for restoration projects. As they are developed, basin-wide ecosystem plans would guide restoration toward those areas that are most vital to the watershed or region. Costs and economic considerations are taken into account for each of the management actions. Most rely on weighing the potential benefits of efforts to improve wildlife habitat, water quality, and overall river basin functioning arising from retarding or halting the degradation of wetlands. The Marine Fisheries Commission (MFC) would designate submerged aquatic vegetation and shellfish beds as vital habitats for preservation and/or restoration. MFC and the Wildlife Resources Commission (WRC) jointly would designate anadromous fish spawning areas, also as vital fisheries habitats. Delineation of these vital habitats would be accomplished through intensive, site-specific evaluations as currently is the procedure for primary and secondary nurseries.

**Plan recommends restoration of specific project sites:**

N

**Plan includes a discussion of funding sources:**

Y

**Plan addresses long-term protection of restored sites:**

Y

**Partners included in developing the plan:**

Federal  
State  
Local  
Business/Industry  
Non-profit Organizations  
Academia  
Foundations  
Private landowners

**Type(s) of public outreach included during plan development:**

Held public workshops, meetings, open house, or scoping meetings  
Held focus groups  
Formed an advisory group(s)

**Plan includes public outreach as part of plan implementation (e.g. annual public meeting, local group participation):**

Y

**Plan discusses the application of innovative approaches to restoration:**

N

**Plan make use of GIS mapping capabilities:**

Y

**Plan addresses monitoring/reference sites for ecosystem level monitoring (baseline conditions) by:**

G

**Plan addresses monitoring/reference sites for project level monitoring by:**

G

**The plan discusses or coordinates with other restoration plans covering the same geographic area:**

N

**Other plan names:**

**Plan contains detailed information on historic and/or current habitat size, rate of loss, acres restored or protected, etc.):**

Y

**Summary of this habitat information:**

Estuarine natural heritage is threatened by potentially extensive alteration of natural areas for human activities including residential, commercial and industrial development; transportation; agriculture; and forestry. It has been estimated that North Carolina had 7.8 million acres of wetlands in presettlement times. By the 1950's, 34% of the original acreage had been altered mostly for forestry. Between 1780 and 1980, North Carolina experienced a decrease of 49% from 11.1 million acres to 5.7 million acres of wetlands, mainly due to forestry and agriculture. Historically, habitat changes have been caused largely by land clearing for agriculture and by some forestry practices. However, other uses, including road construction and urban development, have also played a significant role. Some improvements in habitat protection have been made in recent years, and many natural areas are protected through government ownership and voluntary private protection agreements; however, many important and rare natural areas remain unprotected. Fisheries Nursery Areas - Primary nursery areas for fisheries cover almost 25,000 acres, or 1.5%, of the Albemarle-Pamlico estuarine system's total water area. Nursery areas are generally found in tributary creeks and embayments, where shallow, mid to high salinity waters lay over muddy or grassy bottoms. Primary, secondary and special secondary nursery areas are of critical importance to the propagation of over 75 species of fish and shellfish in North Carolina and along the east coast. There is only limited data on the coverage of submerged aquatic vegetation. Anecdotal information indicates there may have been large losses of SAV from historic levels, particularly in rivers, creeks and western sounds.